Interim Centralized Spent Nuclear Fuel Storage Site for America

NRC – RIC 2005
Session T B1
Spent Fuel Management
Washington D.C.

John Parkyn
Chairman of the Board
Private Fuel Storage, L.L.C.

March 8, 2005

Private Fuel Storage

PFS History

- Started in 1995, 8 Utility Members, Applied for NRC License in 1997
- NRC Safety Hearings in 2000
- NRC Environmental & Final Safety Hearings, April - June 2002
- Final Environmental Impact Statement & Final Safety Evaluation Report Recommended License, December 2001

Site Partners

Skull Valley Band of Goshute Indians

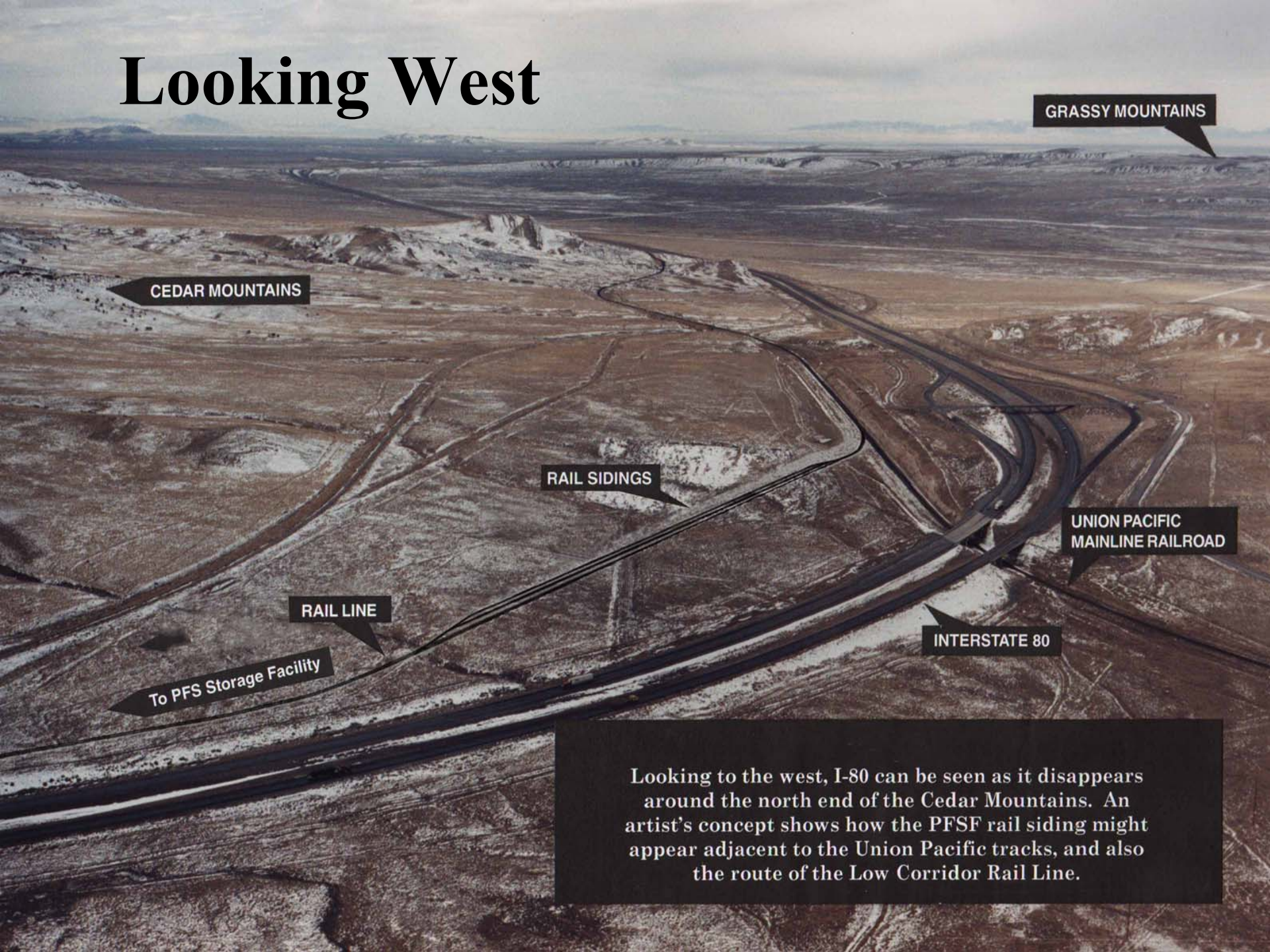
Major Benefits

- Less Expensive than On-site Storage by an Individual Utility
- Enhances Security of Spent Fuel

Aerial View

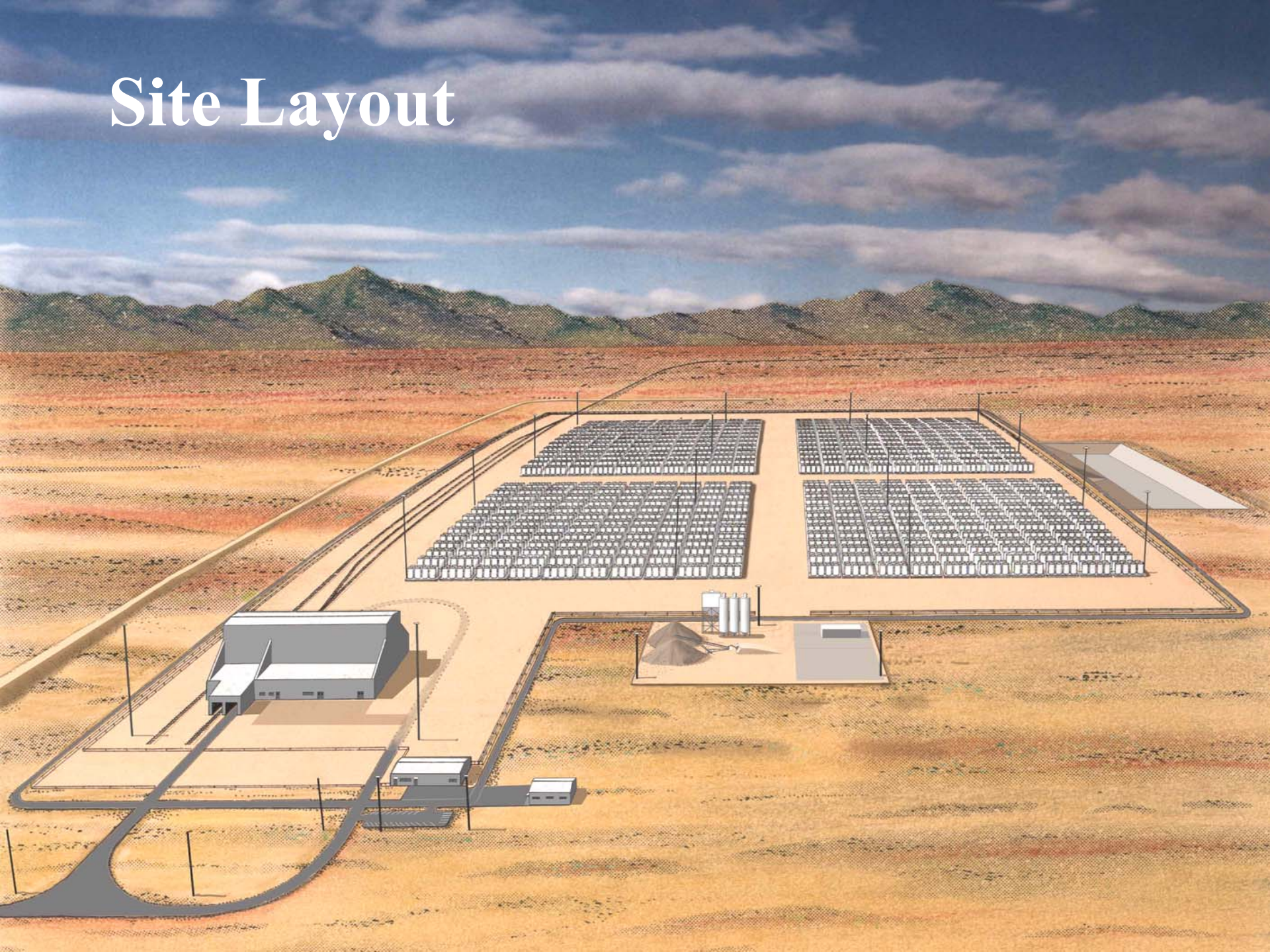
Looking to the north, this artist's concept shows the PFSF facility, including the Low Corridor Rail Line and the site access road.

Looking West



Looking to the west, I-80 can be seen as it disappears around the north end of the Cedar Mountains. An artist's concept shows how the PFSF rail siding might appear adjacent to the Union Pacific tracks, and also the route of the Low Corridor Rail Line.

Site Layout



Facility Description

- Space For Up To 4000 Casks
- Temperature Indicators Installed for Remote Read-out
- Periodic Inspections
  - Looking for debris blocking vents

Transportation
Strategic Concepts

- Technical Review Committees to Select Best Canister Vendors
- Extensive Review of Handling Requirements at Source and Destination

...continued

Transportation Strategic Concepts

- Review of Truck vs. Rail-Only Option
- Decision to Select Rail-Only
  - Reduces interactions with public highway vehicles
  - Enhances security of shipments
  - Reduces by a factor of 20 to 60 the number of shipments

Rail Shipment Enhancement

- Meeting with Railroads to Discuss Their Needs to Cover Shipping
- Discussion with American Association of Railroads to Draft Transportation Standards

Basis for Safety Standards

- Cask Licensed and Reviewed by NRC
- Rail Lines Maintain Rail Rights-of-Way to Standards Set by Federal Railroad Administration
- These Two Inputs Determine Overall Safety

Basis for Safety Enhancement

- Equipment (rolling stock) a Priority of PFS
  - Set a new level of precision
  - Use the quality control process developed by railroads
  - Develop a conservative standard to ensure each rail line hauling spent fuel achieves a high level of safety

Standard

- Each Bearing Transmits Conditions of Vibration and Temperature While In Route
- Electro Magnetic Braking to Shorten Stopping Distance
- Shelved Couplers to Protect Against Rough Track Decoupling
- 20+ Parameters Transmitted Live Time to Satellite
- Full Test of Prototype
- Continuing Surveillance of Each Cask Car in Service
- Single Use Trains

Route Selection

- Once Equipment Upgraded - Route Selection Process Next Issue
- PFS Determines Best Route from Each Customer to Storage Site
- Consult with Railroads on Initial Round of Review for Their Route Preference
- Review and Modify with NRC, DOT and Stake Holders (state & local governments)

License Status

- ASLB Hearing on F16 Aircraft Crash – August & September
- ASLB Decision Expected During January or February 2005

Construction

- Rail Car Testing of Prototype to Be Completed
- Fabrication of Rolling Stock and Handling Equipment Parallels Site Construction and Startup

Operations

- Scheduled for 2007
- 200 Canisters Per Year Capability
- 40,000 MTU (4,000 Canisters) Capacity Under Current License
- Open to All Utilities and All Canister Vendors

Questions??